

Naval Innovation in the Interwar Period 1920-1940

Williamson Murray
Professor Emeritus, Ohio State
The Naval War College
The Potomac Institute

Key Definitions:

Innovation: The processes of change during peacetime in which military organizations incorporate the experiences of the past (distant as well as recent history), new technologies, new tactical and operational concepts, and the ever changing strategic framework into their vision of future war

Adaptation: The wartime processes by which military organizations absorb and adapt to the tactical, operational, and strategic lessons of combat, the increased pace of technological change during war, and attempt to understand the enemy's methods, aims, and purposes.

Improvisation: The demands of changing the culture, strategy, operational concepts of fighting when caught by surprise – often times at the beginning of a conflict, sometimes during a war

The Nature of the Problem

You will always get the next war wrong. What matters is how quickly military organizations adapt to the actual conditions they confront.

Military organizations invariably take into war their beliefs as to what war *will* look like. Their visions are invariably wrong. Those that are effective adapt their vision to reality. Most, however, attempt to force reality to conform to their vision

“In the dreadful presence of suffering and danger, emotion can easily overwhelm intellectual conviction, and in this psychological fog it is hard to form clear and complete insights.... Nowhere, in consequence, are differences of opinion so acute as in war, and fresh opinions never cease to batter one’s convictions.”

Clausewitz

The Differences between Adaptation and Innovation

Innovation: Peacetime Phenomenon

Influence of past conflicts (realistic assessment)

Need to conceive of realistic opponent: Role of Red Teaming

Time not a problem

Implications of technological change difficult to gage

Adaptation: Wartime Phenomenon

The nature of an uncertain and ambiguous environment

Ability to analyze what *is* actually happening

No time

Enemy adapting also: war a complex adaptive system

Deception, intended and unintended, a part of war

Improvisation

The first period of war

Adapting to reality

Naval Innovation 1920-1930

Historical Examinations of the interwar period

Prominence of German military initially

In the 1980s historians primarily interested in German army and Luftwaffe

Broadening of historical studies

Increasing interest in innovation in U.S. Navy

Increasing numbers of books on navy in this period

Murray & Millett, Hone, Rosen, Nofi, Kuehn

We are beginning to put together a coherent picture of the enablers of what makes successful innovation

A story of real utility in thinking about successful innovation in the 21st century

But there are caveats

The Story line

The U.S. Navy 1920 – 1945

Extraordinary course of innovation

Created entirely new way of war

Adapted to major technological changes

**Created the concepts required for a war across
the Pacific**

Enablers of Innovation (major topics of my discussion

Naval War College

War gaming

Fleet Exercises

Most importantly a culture of openness

**Results: Prepared first to improvise and then to adapt in
1941**

The Naval War College

Place in the navy of the interwar period

Role of Admiral Sims

**Career enhancing to be on faculty: Spruance, Turner
Connley**

**Role in Fleet Exercises: connection with fleet
Feedback loops**

Intellectual excellence prized

Development of serious war gaming

Strategic and tactical games

Thinking fed directly to the fleet

Red Teaming major place in education

No effort to create feel good atmosphere

Innovation and the Fleet

The Impact of the Washington Treaty of 1922

Enormous strategic impact

Impact on War Plan Orange: “Thrusters” vs careful approach

Impact on fleet focused on battleships

Potential of *Lexington* and *Saratoga*

Reeves and the *Langley*

Importance of Fleet exercises

Concepts tested out under rigorous conditions

Operational lessons: Learned lessons for WWII

**Logistics, carrier war, impact of naval air power,
power projection, island hopping**

One weakness: Underestimation of the Japanese.

The Navy's culture

The essential: the culture of the officer corps

Fleet exercises: rigorous, fair tests of potential capabilities

Aim to test not to prove

Red Teaming: Blue vs Orange

Hot Washes

Held before large numbers of officers

Ruthless criticism of senior officer performance

Direct impact on careers

Honest reporting in exercises passed throughout the fleet

Importance of the General Board

Not a bunch of battleship fogies

Transmission of new ideas throughout the navy

Impact on World War II

The navy got it “right enough”

Kimmel and the saving grace of Pearl Harbor

The blessing of Nimitz and King

The Period of improvisation

8 December 1941 to July 1943

The Gift of the Japanese

The gift of chance: Midway

Moltke's commend about plans

The period of Plan Orange: July 1943 to August 1945

Takeaways from History

1)The fundamental nature of war will not change

2)Friction, uncertainty, and ambiguity will dominate

We live in a non-linear universe

3)Strategy matters:

If you get the strategy right, deficiencies at the tactical and operational levels can be repaired

4)The enemy always gets a vote

Understanding the “other” is crucial

5)Crucial importance of senior military leaders providing “strategic as well as operational advice to civilian leaders